

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-3 (Canceled).

Claim 4 (Previously Presented): A power semiconductor device comprising:

a first semiconductor layer of non-doped $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq X \leq 1$);

a second semiconductor layer of non-doped or n-type $\text{Al}_Y\text{Ga}_{1-Y}\text{N}$ ($0 \leq Y \leq 1$, $X < Y$)
disposed on the first semiconductor layer;

source and drain electrodes disposed separately from each other, and electrically
connected to the second semiconductor layer;

a gate electrode disposed on the second semiconductor layer between the source and
drain electrodes;

an insulating film covering the second semiconductor layer between the gate and
drain electrodes;

a first field plate electrode disposed on the insulating film and electrically connected
to the gate electrode; and

a second field plate electrode disposed on the insulating film and electrically
connected to the source electrode,

wherein the second field plate electrode comprises an intermediate electrode portion
interposed between the first field plate electrode and the drain electrode,

wherein the insulating film comprises a first insulating film disposed on the second
semiconductor layer, and the first field plate electrode and the intermediate electrode portion
are disposed on the first insulating film,

wherein the second field plate electrode comprises a covering electrode portion that connects the source electrode to the intermediate electrode portion and covers the first field plate electrode through an inter-level insulating film.

Claim 5 (Currently Amended): ~~The device according to claim 4,~~ A power semiconductor device comprising:

a first semiconductor layer of non-doped $\text{Al}_X\text{Ga}_{1-X}\text{N}$ ($0 \leq X \leq 1$);

a second semiconductor layer of non-doped or n-type $\text{Al}_Y\text{Ga}_{1-Y}\text{N}$ ($0 \leq Y \leq 1$, $X < Y$) disposed on the first semiconductor layer;

source and drain electrodes disposed separately from each other, and electrically connected to the second semiconductor layer;

a gate electrode disposed on the second semiconductor layer between the source and drain electrodes;

an insulating film covering the second semiconductor layer between the gate and drain electrodes;

a first field plate electrode disposed on the insulating film and electrically connected to the gate electrode; and

a second field plate electrode disposed on the insulating film and electrically connected to the source electrode,

wherein the second field plate electrode comprises a covering electrode portion that covers the first field plate electrode through an inter-level insulating film and has a distal end extending beyond the first field plate electrode toward the drain electrode.

Claim 6 (Currently Amended): ~~The device according to claim 4,~~ A power semiconductor device comprising:

- a first semiconductor layer of non-doped $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$);
- a second semiconductor layer of non-doped or n-type $\text{Al}_y\text{Ga}_{1-y}\text{N}$ ($0 \leq y \leq 1$, $x < y$)

disposed on the first semiconductor layer;

source and drain electrodes disposed separately from each other, and electrically connected to the second semiconductor layer;

a gate electrode disposed on the second semiconductor layer between the source and drain electrodes;

an insulating film covering the second semiconductor layer between the gate and drain electrodes;

a first field plate electrode disposed on the insulating film and electrically connected to the gate electrode; and

a second field plate electrode disposed on the insulating film and electrically connected to the source electrode,

wherein the insulating film has a first thickness and a second thickness below the first and second field plate electrodes, respectively, and the second thickness is larger than the first thickness.

Claim 7 (Original): The device according to claim 6, wherein the insulating film comprises a first insulating film disposed on the second semiconductor layer and a second insulating film disposed on the first insulating film, the first field plate electrode is disposed on the first insulating film, and the second field plate electrode is disposed on the second insulating film.

Claim 8 (Currently Amended): ~~The device according to claim 4, further comprising~~
A power semiconductor device comprising:
a first semiconductor layer of non-doped $\text{Al}_X\text{Ga}_{1-X}\text{N}$ ($0 \leq X \leq 1$);
a second semiconductor layer of non-doped or n-type $\text{Al}_Y\text{Ga}_{1-Y}\text{N}$ ($0 \leq Y \leq 1$, $X < Y$)
disposed on the first semiconductor layer;
source and drain electrodes disposed separately from each other, and electrically
connected to the second semiconductor layer;
a gate electrode disposed on the second semiconductor layer between the source and
drain electrodes;
an insulating film covering the second semiconductor layer between the gate and
drain electrodes;
a first field plate electrode disposed on the insulating film and electrically connected
to the gate electrode;
a second field plate electrode disposed on the insulating film and electrically
connected to the source electrode; and
a third field plate electrode disposed on the insulating film and electrically connected
to the drain electrode.

Claim 9 (Original): The device according to claim 8, wherein the insulating film
comprises a first insulating film disposed on the second semiconductor layer, and the first and
third field plate electrodes are disposed on the first insulating film.

Claim 10 (Original): The device according to claim 8, wherein the insulating film comprises a first insulating film disposed on the second semiconductor layer and a second insulating film disposed on the first insulating film, the first field plate electrode is disposed on the first insulating film, and the third field plate electrode includes a portion disposed on the second insulating film.

Claim 11 (Previously Presented): A power semiconductor device comprising:

- a first semiconductor layer of non-doped $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$);
- a second semiconductor layer of non-doped or n-type $\text{Al}_y\text{Ga}_{1-y}\text{N}$ ($0 \leq y \leq 1$, $x < y$) disposed on the first semiconductor layer;
- first and second contact layers of n-type $\text{Al}_z\text{Ga}_{1-z}\text{N}$ ($0 \leq z \leq 1$) disposed separately from each other on or in a surface of the second semiconductor layer, and having a resistivity lower than that of the second semiconductor layer;
- source and drain electrodes disposed on the first and second contact layers, respectively;
- a gate electrode disposed on the second semiconductor layer between the source and drain electrodes;
- an insulating film covering the second semiconductor layer between the source and drain electrodes;
- a first field plate electrode disposed on the insulating film and electrically connected to the source electrode; and
- a second field plate electrode disposed on the insulating film and electrically connected to the drain electrode.

Claim 12 (Original): The device according to claim 11, wherein the first and second contact layers are formed in the surface of the second semiconductor layer, and extend beyond an interface between the first and second semiconductor layers into the first semiconductor layer.

Claim 13 (Original): The device according to claim 11, wherein the first and second contact layers protrude on the surface of the second semiconductor layer on a side opposite to the first semiconductor layer.

Claim 14 (Previously Presented): The device according to claim 11, further comprising a third semiconductor layer of p-type $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$) disposed on the first semiconductor layer on a side opposite to the second semiconductor layer.

Claim 15 (Original): The device according to claim 14, wherein the third semiconductor layer is electrically connected to the source electrode.

Claim 16 (Original): The device according to claim 11, wherein a ratio between first and second projected lengths in a direction connecting the source and drain electrodes is set to be 0.9 to 1.1, where the first projected length denotes a portion of the first field plate electrode that extends beyond an end of the gate electrode toward the drain electrode, and the second projected length denotes a portion of the second field plate electrode on the insulating film.

Claim 17 (Original): The device according to claim 16, wherein the second projected length is set larger than a thickness of the first semiconductor layer.

Claim 18 (Previously Presented): A power semiconductor device comprising:

- a first semiconductor layer of non-doped $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$);
- a second semiconductor layer of non-doped or n-type $\text{Al}_y\text{Ga}_{1-y}\text{N}$ ($0 \leq y \leq 1$, $x < y$) disposed on the first semiconductor layer;
- source and drain electrodes disposed separately from each other, and electrically connected to the second semiconductor layer;
- a gate electrode disposed on the second semiconductor layer between the source and drain electrodes;
- an insulating film disposed on the second semiconductor layer between the source and drain electrodes, and covering the gate electrode;
- a first field plate electrode disposed on the insulating film and electrically connected to the source electrode;
- a second field plate electrode disposed on the insulating film and electrically connected to the drain electrode; and
- a drain contact electrode disposed in contact with the first and second semiconductor layers at a position adjacent to the drain electrode, and electrically connected to the drain electrode.

Claim 19 (Original): The device according to claim 18, wherein the drain contact electrode is disposed in a trench that extends from a surface of the second semiconductor

layer through an interface between the first and second semiconductor layers into the first semiconductor layer.

Claim 20 (Original): The device according to claim 18, further comprising a source contact electrode disposed in contact with the first and second semiconductor layers at a position adjacent to the source electrode, and electrically connected to the source electrode.

Claim 21 (Original): The device according to claim 20, wherein the source contact electrode is disposed in a trench that extends from a surface of the second semiconductor layer through an interface between the first and second semiconductor layers into the first semiconductor layer.

Claim 22 (Previously Presented): The device according to claim 18, further comprising first and second contact layers of n-type $\text{Al}_Z\text{Ga}_{1-Z}\text{N}$ ($0 \leq Z \leq 1$) disposed separately from each other on the second semiconductor layer, and having a resistivity lower than that of the second semiconductor layer, wherein the source and drain electrodes are disposed on the first and second contact layers, respectively.